

#### **IV. B. 23. Lead Hazards**

- a) Background. Lead in the air, water, and soils, and on the surface of other materials has been linked to major health problems in children under 6 years of age and to damage of the brain, central nervous system, kidneys, hearing, and coordination, of adults as well as children. Lead is acquired in the human body through ingestion, air absorption, skin absorption, and pregnancy. Sources include dust from lead-based paint, soil contaminated by lead-based paint or leaded gasoline, drinking water in lead pipes and lead-soldered pipes, work clothes used in the lead industry, colored printing, lead-acid batteries, leaded glass, and leaded pottery.



Storage batteries with lead-acid cores

Lead poisoning has been linked to juvenile delinquency and behavioral problems. Research has shown that children with elevated blood lead levels are seven times more likely to drop out of school and twice as likely to lose a few years in language acquisition. Additionally it has long been identified as a neurological occupational hazard for workers regularly exposed to the element in the lead industry.

Rural Development's regulations require a certain amount of investigation for the presence of lead hazards; proper disclosure of such hazards in the transfer of real properties; and actual lead remediation in some instances. There is a special focus on lead hazards posed by lead-based paint which was widely used in the first three-quarters of the 20<sup>th</sup> century and which poses a special hazard to small children in and around residences. This special emphasis was reiterated in an August 2000 press release by U.S. Department of Housing and Urban Development (HUD) Secretary, Andrew Cuomo, when he stated,

“Every family deserves to live in a home safe from the dangers of lead. Since 1992, HUD has committed over a half a billion dollars to lead-safety programs in more than 200 cities. Today, we are expanding our commitment, by helping to ensure that all communities have access not only to affordable housing, but housing that is lead-safe.”



Three main categories of the hazard require attention by Rural Development: (1) lead in various forms, such as dust and flakes, from lead-based paint products employed in the past; (2) lead in drinking water from a variety of materials used in water systems, such as lead pipe and leaded pipe solder; and (3) lead waste products, such as discarded batteries and lead-based paint/containers.

b) Governing Regulations.

1) Federal.

- (a) Lead-Based Paint Poisoning Prevention Act of 1971, Public Law 91-695, as amended.
- (b) National Consumer Health Information and Health Promotion Act of 1976.
- (c) Rural Development Instruction 1924-A, Exhibit H, "Prohibition of Lead-Based Paints.
- (d) Lead Contamination Control Act of 1988, Public Law 100-572.
- (e) Safe Drinking Water Act of 1974, as amended.
- (f) Water Quality Act of 1987.
- (g) "Lead: Requirements for Disclosure of Known Lead-Based Paint and/or Lead-Based Hazards in Housing", U.S. Environmental Protection Agency and U.S. Department of Housing and Urban Development Federal Register Final Rule, 24 CFR Part 35 and 40 CFR Part 745.
- (h) U.S. Executive Order 11514, Protection and Enhancement of Environmental Quality.
- (i) National Environmental Policy Act, 42 U.S.C. 4321.
- (j) Title 7, Part 1b and 1c, Code of Federal Regulations, U.S. Department of Agriculture's National Environmental Policy Act.
- (k) Residential Lead-Based Paint Hazard Reduction Act of 1992.

2) State.

- (a) Colorado Water Quality Control Act, Colorado Revised Statutes, 25-8-101 et seq.
- (b) Colorado Revised Statutes, Title 25, Article 1, as amended.

- c) General Policy. Rural Development should not authorize, fund, or carry out any proposal or project which would adversely affect the health of borrowers based on known or suspected lead contamination hazards. Whenever a proposed action is determined to have the potential for involving lead hazards, appropriate testing and consultation with the Colorado Department of Public Health and Environment (CDPHE), Hazardous Material and Waste Management and/or Water Quality Control Division, as appropriate, or the U.S. Environmental Protection Agency (EPA) should be consulted as early in the environmental impact analysis process as possible to evaluate the possible consequences of and protection requirements necessary concerning the action.

Lead-Based Paint Hazard Policy. Lead oxide and lead chromate were originally used in the manufacture of paint materials because they were found to hold color and sheen very well and be very durable in wet conditions. Relatively recently (circa 1978) the lead component was replaced by a titanium base within the industry. Lead-based paints were found to work remarkably well in kitchens, bathrooms, windows, and doors.

Unfortunately, lead-based paints were also found to cause serious neurological disorders to bystanders. Lead-based paints pose a hazard to small children who are likely to ingest paint chips peeling from deteriorated surfaces covered with lead-based paint or ingest leaded paint dust from surfaces near deteriorated leaded paint chips. Lead is extremely toxic to small children and, if ingested over significant periods of time, could cause damage to the central nervous system, kidneys, hearing, and/or coordination.



Wow, what's in the paint, dad?

Rural Development Instruction 1924-A, Exhibit H, implemented Rural Development's policies and requirements regarding the use and management of lead-based paint materials in residences financially assisted by the agency and intentionally mirrored HUD's

requirements. These requirements emanated from the Lead Contamination Control Act of 1988 and similar contemporary federal legislation. Exhibit H exempted facilities constructed after 1978 since the source of the problem had been removed from manufacture. Exhibit H also established a policy of investigation and disclosure for lead-based paint hazards when Agency-financed properties were exchanged.

Rural Development, as of September 15, 2000, has implemented the HUD/EPA developed Final Rule of the Residential Lead-Based Paint Hazard Reduction Act of 1992 that has established a new protocol for lead-based paint hazard reduction in housing and facilities intended for occupancy by small children (i.e. day care centers). Rural Development adopted six sections of the Final Rule which it determined would affect its programs:

- (1) Subpart A\*: Disclosure of known lead-based paint hazards upon the sale or lease of residential property;
- (2) Subpart B\*: General lead-based requirements and definitions;
- (3) Subpart C\*\*: Disposition of residential property owner by a federal agency other than HUD;
- (4) Subpart D\*\*: Project-based assistance provided by a federal agency other than HUD;
- (5) Subpart J\*\*: Rehabilitation (applicable sections); and
- (6) Subpart R\*: Methods and standards for lead-based paint hazard evaluation and hazard reduction activities.

\* Applies to all residential housing in Rural Development programs.

\*\* Provides specific requirements depending on whether housing is being disposed of or assisted by the Agency, type and amount of financial assistance, age of structure, whether dwelling is rental or owner-occupied.

The Final Rule exempts the following types of properties from its requirements:

- (1) Non-residential properties (except “child occupied facilities”\*);
- (2) Housing built after January 1, 1978;
- (3) Multi-family housing exclusively for the elderly or persons with disabilities (unless a child under the age of 6 is expected to live there);
- (4) Zero-bedroom dwellings (i.e. dormitories);
- (5) Properties found free of lead-based paint hazards by a lead-based paint certified inspector;



- (6) Properties where all lead-based paint hazards have been removed;
- (7) Unoccupied housing that will remain vacant until it is demolished; and
- (8) Any property rehabilitation or improvement that does not disturb a painted surface.

\* A "child occupied facility" is defined as a building, constructed prior to 1978, visited regularly by the same child, 6 years of age or under, on at least two different days within any week (Sunday through Saturday), provided that each day's visit lasts 3 hours and the combined annual visits last at least 60 hours. They may include day-care centers, preschools, and kindergarten classrooms.

The EPA, HUD, and the Consumer Product Safety Commission (CPSC) have jointly produced a lead-based paint awareness pamphlet entitled, *"Protect Your Family from Lead in Your Home"*, available in English and Spanish. To request copies of this pamphlet from the Rural Development Property and Supply Division, complete RD Form 2024-4 and fax it to 1-800-336-3604.

Rural Development has developed a decision key for all Rural Development actions that involve residential property to determine the applicability of lead-based paint regulations and what actions must be taken to achieve compliance:

- (1) Is a residential property involved?
  - Yes: Go to (2).
  - No: The Final Rule is not applicable.
- (2) Was the residential property constructed prior to 01/01/78?
  - Yes: Go to (3).
  - No: The Final Rule is not applicable.
- (3) Is the residential property being bought, sold, or leased?
  - Yes: Go to (3a).
  - No: Go to (4).



(3a) Is the residential property real estate owned (REO) by Rural Development?

Yes: Go to (3b).

No: Rural Development must ensure disclosure documents are in its file.  
The seller or lessor must disclose know information on lead-based paint to the buyer(s) or renter(s), as applicable.  
The seller or lessor must provide the pamphlet, *"Protect Your Family from Lead in Your Home"* paint to the buyer(s) or renter(s), as applicable.  
Go to (4).

(3b) Was the REO property constructed between 01/01/60 and 12/31/77?

Yes: Rural Development must conduct a lead-based paint inspection.  
Rural Development must conduct a risk assessment.  
Rural Development must provide a notice to the occupants of its results.  
Go to (4).

No: Rural Development must conduct a lead-based paint inspection.  
Rural Development must conduct a risk assessment.  
Rural Development must abate the lead-based paint hazard.  
Rural Development must conduct a clearance examination.  
Rural Development must provide notice to occupants of its results.  
Go to (4).

(4) Is rehabilitation assistance (that does not disturb painted surfaces) being provided?

Yes: Go to (4a).

No: Go to (5).

(4a) Is rehabilitation assistance less than or equal to \$5,000 per dwelling unit per year?

Yes: Rural Development must ensure and document that the owner or grantee provides a lead-based paint pamphlet to occupants.  
Rural Development must ensure and document that the owner or grantee tests paint on surfaces to be disturbed.  
Rural Development must ensure and document that the owner or grantee uses safe work practices.  
Rural Development must ensure and document that the owner or grantee repairs disturbed paint.  
Rural Development must ensure and document that the owner or grantee Performs a clearance test.  
Rural Development must ensure and document that the owner or grantee Provides notice to occupants of the result of the clearance test.  
Go to (5).

No: Go to (4b).

(4b) Is rehabilitation assistance greater than \$5,000 and less than or equal to \$25,000?



- Yes: Rural Development must ensure and document that the owner or grantee provides the pamphlet, *"Protect Your Family from Lead in Your Home"* to occupants.  
Rural Development must ensure and document that the owner or grantee tests paint on surface(s) to be disturbed.  
Rural Development must ensure and document that the owner or grantee conducts risk assessment.  
Rural Development must ensure and document that the owner or grantee establishes interim control.  
Rural Development must ensure and document that the owner or grantee performs a clearance examination.  
Rural Development must ensure and document that the owner or grantee provides notice to occupants of results.  
Go to (5).
- No: Rural Development must ensure and document that the owner or grantee provides the pamphlet, *"Protect Your Family from Lead in Your Home"* to occupants.  
Rural Development must ensure and document that the owner or grantee tests paint on surface(s) to be disturbed.  
Rural Development must ensure and document that the owner or grantee conducts risk assessment.  
Rural Development must ensure and document that the owner or grantee abates all lead-based paint hazards identified.  
Rural Development must ensure and document that the owner or grantee performs a clearance examination.  
Rural Development must ensure and document that the owner or grantee provides a notice to occupants of the results of the clearance examination.  
Rural Development must ensure and document that the owner or grantee performs ongoing lead-based paint maintenance.  
Go to (5).



- (5) Is project-based rental assistance equal to or greater than \$5,000 annually, per project?

Yes: Rural Development must ensure and document that the owner or landlord provides the pamphlet, *"Protect Your Family from Lead in Your Home"* to occupants.  
Rural Development must ensure and document that the owner or landlord conducts a risk assessment.  
Rural Development must ensure and document that the owner or landlord conducts interim controls.  
Rural Development must ensure and document that the owner or landlord conducts a clearance examination.  
Rural Development must ensure and document that the owner or landlord provides notice of the results of the clearance examination to the occupants.  
Rural Development must ensure and document that the owner or landlord takes immediate response to a child with an environmental intervention blood lead level the following: risk assessment, interim controls, and environmental clearance.

No: The Final Rule is not applicable.

The above information is also presented in Rural Development Administrative Notice No. 3593 (1924-A), *"Residential Lead-Based Paint Hazard Reduction"*.

Lead in Drinking Water Hazard Policy. The Colorado Primary Drinking Water Regulations, effective April 30, 1991, enforce drinking water standards set forth in the federal Safe Drinking Water Act. The state regulations establish state drinking water standards for microbiological contaminants, turbidity, inorganic chemicals (including lead), organic chemicals, radioactivity, and corrosivity. The regulations also regulate the construction and maintenance of public water treatment plants.

When reviewing construction and operating plans and specifications for Rural Development-financed public water treatment plants and water distribution systems, Rural Development personnel should ensure that concentrations of lead in the drinking water produced by the treatment plant or distribution system will not exceed the drinking water standard for lead.

The Colorado Primary Drinking Water Regulations establish a maximum contaminant level (MCL) for lead in drinking water for public drinking water systems at 0.05 milligrams per liter (mg/L). Public water systems financed by Rural Development must be operated in such a manner that the MCL is not exceeded. Although the primary responsibility for maintaining drinking water standards falls on the water system operator, Rural Development should ensure that all the public water systems in which it holds an interest are being operated in accordance with the Colorado Primary Drinking Water Regulations.

Lead Waste Products Policy. Lead in products, such as lead-acid batteries, may be found abandoned on properties under consideration for Rural Development lending assistance and constitute hazardous waste under the definitions of the Resource Conservation and Recovery





Act (RCRA), though recycling may be an option. Rural Development should ensure that all properties proposed for Rural Development lending assistance are properly investigated for the presence of abandoned lead products prior to the commitment of lending resources. Rural Development should also ensure that proposed real estate owned (REO) properties are properly investigated for the presence of abandoned lead products prior their commitment to transfer to and from the Agency. Lead waste products should be properly remediated, in accordance with RCRA, as part of project development where Rural Development commitment is elected.

d) Classification.

- (1) Lead present below regulatory maximum thresholds. Mitigation not required.
- (2) Lead present above regulatory maximum thresholds. Mitigation required.

e) Agency Jurisdiction:

- (1) Federal. The U.S. Environmental Protection Agency oversees the Nation's lead-based paint, water quality, and toxic waste disposal programs. Following is the contact for matters within the State of Colorado:

U.S. Environmental Protection Agency  
Region 8 Office  
8P-P3T  
Dave Combs, Lead Program Coordinator  
999 18th Street, Suite 300  
Denver, Colorado 80202-2466

Contact: 303-312-6021 or 1-800-227-8917 ext 6021

[http://www.epa.gov/region08/toxics\\_poisons/leadpnt/leadpnt.html](http://www.epa.gov/region08/toxics_poisons/leadpnt/leadpnt.html)



- (2) State. The Colorado Department of Public Health and Environment, Water Quality Control Division, oversees the State's water quality program. Following is the contact for matters within the State of Colorado.

(Lead-Based Paint):

Colorado Department of Public Health and Environment  
Hazardous Materials and Waste Management Division  
4300 Cherry Creek Drive South  
Denver, Colorado 80246

(303) 692-3500

(Lead in Drinking Water):

Colorado Department of Public Health and Environment  
Water Quality Control Division  
Drinking Water Section  
4300 Cherry Creek Drive South  
Denver, Colorado 80246

Colorado Department of Public Health and Environment  
Water Quality Control Division  
Wastewater Permits and Enforcement Section  
4300 Cherry Creek Drive South  
Denver, Colorado 80220-1530

(303) 692-3500

f) Location of Resource.

- (1) Lead in Paint. Lead could be present in paint in buildings constructed prior to 1978 when it was effectively removed from manufacturing by the CPSC.
- (2) Lead in Drinking Water. Lead could be present in drinking water from a variety of water system components, such as piping, pipe solder, appliances, liners, sleeves, and tanks.
- (3) Lead Waste. Lead could be present in the form of hazardous waste, as defined by RCRA, in abandoned products such as lead-acid batteries, liners, sleeves, shields, anodes, rods, bars, ingots, wire, sheets, and castings, found on real properties.



g) Other References.

- (1) U.S. Department of Housing and Urban Development. Publication, "*Protect Your Family from Lead in Your Home*"

(web-site)

<http://www.hud.gov/lea/leadhelp.html>

- (2) U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics, lead topics home page

(web-site)

<http://www.epa.gov/lead/>